

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NEW YORK**

SUFFOLK COUNTY WATER
AUTHORITY,

Plaintiff,

-against-

THE DOW CHEMICAL COMPANY,
FERRO CORPORATION, VULCAN
MATERIALS COMPANY, PROCTER &
GAMBLE COMPANY, SHELL OIL
COMPANY, individually and doing business
as SHELL CHEMICAL LP.

Defendants.

Complaint for a Civil Case

Case No. 17-cv-6980

Jury Trial Demanded

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I. Introduction

1. Plaintiff Suffolk County Water Authority (“SCWA,” “the Authority,” or “Plaintiff”) is a public drinking water provider serving approximately 1.2 million residents and businesses in Suffolk County, New York. The Authority brings this action to recover the substantial costs necessary to protect the public and restore its damaged drinking water supply wells, which are contaminated by the toxic chemical 1,4-dioxane.

2. 1,4-dioxane is a highly toxic substance and likely human carcinogen that is an ingredient, component, contaminant, and/or impurity in certain industrial and commercial products. 1,4-dioxane and/or products containing 1,4-dioxane were used and discharged in the vicinity of the Authority’s drinking water production wells. 1,4-dioxane has migrated from multiple sources through the subsurface and into the groundwater, and now contaminates many of the Authority’s wells.

3. The defendants in this action are manufacturers, distributors, retailers, and promoters of 1,4-dioxane and/or industrial or commercial products that contain 1,4-dioxane that caused the contamination of the Authority’s wells. The Defendants knowingly and willfully manufactured, promoted, and/or sold products containing 1,4-dioxane to industrial facilities and consumers in Suffolk County, when they knew or reasonably should have known that this harmful compound would inevitably reach groundwater, significantly pollute drinking water wells, render drinking water unusable and unsafe, and threaten the public health and welfare, as it has done and will continue to do with respect to SCWA’s wells.

4. The Authority files this lawsuit to recover compensatory damages and all other remedies, including but not limited to all necessary funds to reimburse the Authority for the costs of designing, constructing, installing, operating, and maintaining the treatment facilities and

equipment required to remove the 1,4-dioxane from its drinking water wells, and all associated costs, and to ensure that the parties responsible for the drinking water contamination bear these expenses, rather than the Authority and its ratepayers.

II. Parties

5. **Plaintiff Suffolk County Water Authority** is a public drinking water provider under the New York Public Authorities Law, Article 5, Title 4 (Sections 1074–1092). Operating as a public benefit corporation since 1951, the Authority has grown to become one of the largest groundwater suppliers in the nation, serving approximately 1.2 million customers. The Public Authorities Law provides that SCWA, in carrying out its powers, purposes, and duties, acts in all respects for the benefit of the people of the County of Suffolk and State of New York, for the improvement of their health, welfare, and prosperity.

6. The following defendants designed, manufactured, formulated, marketed, promoted, distributed, sold, and/or otherwise supplied (directly or indirectly) 1,4-dioxane and/or products containing 1,4-dioxane such that each defendant knew or should have known that 1,4-dioxane would be delivered into areas contaminating the Authority's water supply wells.

- a. **Defendant Dow Chemical Company** is a Delaware corporation with its principal office in Midland, Michigan, which at all times relevant to this action was doing business in New York.
- b. **Defendant Ferro Corporation** is an Ohio corporation with its principal office in Mayfield Heights, Ohio, which at all times relevant to this action was doing business in New York.

- c. **Defendant Vulcan Materials Company** is a New Jersey corporation with its principal place of business in Birmingham, Alabama, which at all times relevant to this action was doing business in New York.
- d. **Defendant Procter & Gamble Company** is an Ohio corporation with its principal place of business in Cincinnati, Ohio, which at all times relevant to this action was doing business in New York.
- e. **Defendant Shell Oil Company**, individually and doing business as **Shell Chemical LP**, is a Delaware corporation with its principal places of business in Houston, Texas, which at all times relevant to this action was doing business in New York.

III. Jurisdiction and Venue

7. The United States District Court for the Eastern District of New York has jurisdiction over this action pursuant to 28 U.S.C. § 1332 because the matter in controversy is between citizens of different states and exceeds the sum of \$75,000.

8. This Court has jurisdiction over Defendants because, based on information and belief, each is a corporation or other business that has sufficient minimum contacts in New York or otherwise intentionally avails itself of the New York market either through the distribution or sale of products containing 1,4-dioxane in the State of New York so as to render the exercise of jurisdiction over it by this Court consistent with traditional notions of fair play and substantial justice.

9. Venue is proper in the Eastern District of New York pursuant to 28 U.S.C. § 1391(b)(2) because a substantial part of the events, omissions, and harms giving rise to this case occurred in the Eastern District of New York.

IV. Factual Allegations

A. The Contaminant: 1,4-Dioxane

10. 1,4-dioxane is a synthetic industrial chemical that does not occur in nature. Highly toxic and extremely persistent in the environment, 1,4-dioxane poses a risk to human health and safety.

11. In the United States, 1,4-dioxane was primarily manufactured by Dow Chemical Company and Ferro Corporation. A third company, Union Carbide, also manufactured 1,4-dioxane but merged with Dow in 2001.

12. 1,4-dioxane was most widely used in industrial settings as a stabilizer for chlorinated solvents, primarily methyl chloroform, also known as 1,1,1-trichloroethane (TCA), which was used to dissolve greasy and oily substances from machined metal products, among other uses. Widespread use of TCA stabilized by 1,4-dioxane started in the 1950s and continued until 1996, when the Montreal Protocol banned TCA for its role in depleting the ozone layer. Even after its ban, TCA was still widely used under an exemption from the ban for “existing stocks,” and was still manufactured in the United States at significant production volumes for certain uses in medical devices and aviation safety until January 1, 2005.

13. The technology for 1,4-dioxane stabilization of TCA was owned, and licensed, by Defendant Dow Chemical Company, the market leader in production of both TCA and 1,4-dioxane. Defendant Vulcan Materials Company licensed this process from Dow to produce 1,4-dioxane-stabilized TCA.

14. 1,4-dioxane also is generated as a by-product of production of ethoxylated surfactants and thus occurs as an impurity in certain consumer products. These compounds have been used widely since the 1950s in detergents, soaps, laundry pre-soaks, cosmetics, shampoos,

automotive antifreezes, aircraft de-icing fluids, foaming agents, emulsifiers, wetting agents, and other products. The 1,4-dioxane present in such products has no beneficial purpose.

15. The most voluminous and widespread use of surfactants containing 1,4-dioxane is in the form of household and commercial laundry detergents. The leading brand of laundry detergent since 1945, Tide, is produced by Defendant Proctor & Gamble. Independent testing of Tide's 1,4-dioxane content showed that 1,4-dioxane was present at up to 85 mg/L (milligrams per liter, or parts per million) until production methods were adjusted recently to reduce 1,4-dioxane.

16. 1,4-dioxane has unique characteristics that cause extensive and persistent environmental contamination. Specifically, it is (1) mobile—that is, because it does not adsorb (stick) to soil particles, it is readily transported through the soil and into groundwater where they can migrate long distances; and (2) persistent—that is, it does not readily biodegrade or chemically degrade in the environment or in conventional treatment systems for drinking water. In sum, once it is applied, discharged, disposed of, or otherwise released onto land, 1,4-dioxane migrates through the subsurface and into groundwater, resists natural degradation, and is difficult and costly to remove from water.

17. 1,4-dioxane contamination presents a significant threat to public health and welfare. The U.S. Environmental Protection Agency (EPA) classifies 1,4-dioxane as “likely to be carcinogenic to humans.” 1,4-dioxane also causes liver and kidney damage.

B. Regulatory Standards Applicable to 1,4-Dioxane

18. No federal or state agency has approved 1,4-dioxane as an additive to drinking water at any level. No federal or state agency has approved releasing or discharging 1,4-dioxane to groundwater in any amount.

19. Currently, there is no enforceable federal or New York State drinking water standard for 1,4-dioxane.

20. Though there is no chemical-specific federal or New York drinking water standard for 1,4-dioxane, it is regulated as an “unspecified organic contaminant” by the New York State Department of Health under a generic “maximum contaminant level” (MCL) of 50 parts per billion (ppb).¹ None of SCWA’s wells has ever exceeded this standard.

21. Suffolk County identified 1,4-dioxane as a contaminant of emerging concern in its 2015 Comprehensive Water Resources Management Plan due to its comparatively high rate of occurrence in Long Island, based on sampling data from the EPA third Unregulated Contaminant Monitoring Rule. Although nationwide only approximately 10% of samples detected 1,4-dioxane, in Long Island (including Nassau and Suffolk Counties) more than 50% of samples detected 1,4-dioxane.

22. In early 2016, New York urged the EPA to acknowledge that 1,4-dioxane contamination is a national problem that requires federal standards.

23. In February 2016, Governor Cuomo created a Water Quality Rapid Response Team (WQRRT), led by the New York State Department of Environmental Conservation and Department of Health, to quickly investigate water contamination reports across New York and take corrective action to address these contamination issues. This team is seen as a national model to research, identify and quickly address water contamination in communities. The WQRRT has been working to identify and address drinking water issues across the state, including sampling of public water and private wells for 1,4-dioxane.

¹ New York’s MCL is denominated in micrograms per liter ($\mu\text{g}/\text{L}$); this measure is equivalent to parts per billion. See, e.g., Zane Satterfield, “What Does ppm or ppb Mean?,” Nat’l Envtl. Servs. Ctr., W. Va. Univ., at 1 (2004), available at <http://nesc.wvu.edu/ndwc/articles/ot/fa04/q&a.pdf>.

24. On April 26, 2017, in response to growing public concern about drinking water pollution, Governor Cuomo signed the Clean Water Infrastructure Act, a \$2.5 billion investment in drinking water infrastructure and water quality protection across the state. The legislation requires all New York-based water systems to test for 1,4-dioxane contamination.

25. In September 2017, Governor Cuomo appointed 12 members to a new Drinking Water Quality Council tasked with ensuring all New Yorkers have access to safe and clean drinking water. The Council's initial responsibility includes recommending an enforceable MCL for 1,4-dioxane as a priority emerging contaminant that remains unregulated by the federal government.

C. Defendants' Knowledge of 1,4-Dioxane's Hazards

26. Defendants knew or should have known of the grave harm and threat to public health and the environment presented by proliferating use of 1,4-dioxane products. Specifically, at all times relevant to this action, defendants knew or reasonably should have known, among other things, that: (a) 1,4-dioxane is toxic to humans; and (b) when products containing 1,4-dioxane are applied, discharged, disposed of, or otherwise released onto land, 1,4-dioxane readily migrates through the subsurface, mixes easily with groundwater, and once present in water, resists natural degradation, renders drinking water unsafe and/or non-potable, and requires significant expenses to remove from public drinking water wells. In fact, Defendants' own research establishes their knowledge.

27. At all times relevant to this action, Defendants have been among the nation's most sophisticated and technically advanced companies in many areas, including chemistry, organic chemistry, analytical chemistry, methods of subsurface investigation, and other areas. As such,

they were uncommonly well positioned to evaluate the potential for the application of their products to result in groundwater contamination.

28. The general mechanisms by which groundwater becomes contaminated with persistent organic compounds, including 1,4-dioxane, have been described in technical literature with which the Defendants were or should have been familiar since at least the 1940s.

29. At all times relevant to this action, Defendant producers of 1,4-dioxane and TCA stabilized with 1,4-dioxane knew or reasonably should have known that the degreasing equipment used by metal product manufacturers and other industrial facilities routinely leaked or otherwise released TCA—and, therefore necessarily 1,4-dioxane—into the environment.

30. At all times relevant to this action, Defendant producers of 1,4-dioxane and TCA stabilized with 1,4-dioxane knew that the primary use of their product, i.e. vapor degreasing, concentrates 1,4-dioxane. Because 1,4-dioxane boils at a higher temperature than TCA, a relatively high proportion of 1,4-dioxane remains as a liquid during vapor degreaser operations. Vapor degreasing includes losses of TCA to the atmosphere, requiring operators to periodically add TCA to the tank. Consequently, while TCA was stabilized with between 2.5 and 4.5% 1,4-dioxane by weight, Dow Chemical's publications and patents show that after use of 1,4-dioxane-stabilized TCA in vapor degreasing operations, the ending concentration of 1,4-dioxane was often as high as 15 to 25%. Waste TCA removed from vapor degreasers therefore typically included high concentrations of 1,4-dioxane with great potential to contaminate large volumes of groundwater. Moreover, it was foreseeable—indeed, it was well known—that such wastes were often mishandled and/or improperly disposed of onto land, where they migrated into groundwater.

31. At all times relevant to this action, the Defendant producers of ethoxylated surfactants and products containing such compounds have been aware that 1,4-dioxane is present in their products as an impurity of production. While Procter & Gamble has been the market leader in the laundry detergent sector, the surfactants it uses have been supplied primarily by Shell Chemicals, whose Neodol line of surfactants was tailor-made for Procter & Gamble. Shell Chemicals identified how 1,4-dioxane is formed during production of ethoxylated surfactants and was aware of this for many years.

32. Despite knowing or having reason to know that long-term groundwater contamination and pollution of water wells were inevitable consequences of the foreseeable uses of their products without proper precautionary measures, including but not limited to adequate warnings, Defendants nonetheless promoted, marketed, and or/sold such products in Suffolk County and elsewhere without providing any such warnings.

D. Harm Resulting from 1,4-Dioxane in SCWA's Wells

33. The Authority meets its customers' demand for water exclusively from municipal supply wells that draw from the Long Island Aquifer System, designated by the EPA as a "sole source" aquifer under the Safe Drinking Water Act, 42 U.S.C. § 300h-3(3), in 1975. A sole source aquifer is one that is "the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health."

34. 1,4-dioxane has been detected in varying amounts at varying times in SCWA's wells. In addition, 1,4-dioxane's high mobility and persistence in soil and groundwater means it will likely continue to spread to affect even more of the Authority's wells in the future.

35. The chlorinated solvent TCA produced by Defendants is a major source of 1,4-dioxane released to the groundwater that supplies SCWA's production wells. 1,4-dioxane has

reached groundwater from TCA-related industrial uses in Suffolk County primarily because degreasing operations—both vapor degreasing and cold cleaning—were characterized by inefficient solvent recapture and disposal systems. Leaks, spills, and careless disposal practices led to frequent and substantial releases from facilities using 1,4-dioxane-related compounds.

36. Users of chlorinated solvents, including TCA produced by Defendants, routinely disposed of waste solvents by pouring them onto the ground or into trenches for evaporation or burning; in addition, solvent use and recovery systems routinely malfunctioned and/or otherwise spilled solvent containing 1,4-dioxane, resulting in releases to surface and groundwater. Defendants were at all times aware of these practices and frequent equipment malfunctions and spills, and the likelihood of releases to the ground and groundwater of solvents containing 1,4-dioxane. Indeed, users of chlorinated solvents, including TCA, were routinely advised by Defendants themselves to dispose of waste solvents by pouring them onto the ground or into trenches for evaporation or burning. These practices resulted in significant soil and groundwater contamination from metals fabrication and other industrial solvent release sites during the height of TCA use in the 1960s, 1970s, and 1980s.

37. 1,4-dioxane also reached groundwater from home and commercial use of detergents, shampoos, dishwashing soaps, and other products that contribute 1,4-dioxane as an impurity of ethoxylated surfactants into the wastewater stream. Exfiltration from sewer lines, which commonly lose some of the wastewater they carry, and/or septic systems transfers these toxic contaminants to groundwater.

V. Causes of Action

FIRST CAUSE OF ACTION
Strict Products Liability for Defective Design

38. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraph as if fully stated herein.

39. As commercial designers, manufacturers, distributors, suppliers, sellers, and/or marketers of products containing 1,4-dioxane, Defendants had a strict duty not to place into the stream of commerce a product that is unreasonably dangerous.

40. Defendants knew that third parties would purchase products containing 1,4-dioxane and use them without inspection for defects.

41. Products containing 1,4-dioxane purchased or otherwise acquired (directly or indirectly) from Defendants by third parties were applied, discharged, disposed of, or otherwise released onto lands and/or water in the vicinity of Plaintiff's drinking water production wells. Such discharges occurred at various locations, at various times, and in various amounts.

42. The products containing 1,4-dioxane purchased by third parties were used in a reasonably foreseeable manner and without substantial change in the condition of such products.

43. Defendants knew or reasonably should have known that the use of products containing 1,4-dioxane in their intended manner would result in the spillage, discharge, disposal, or release of 1,4-dioxane onto land or into water.

44. The products containing 1,4-dioxane used in the vicinity of Plaintiff's drinking water production wells were defective in design and unreasonably dangerous because, among other things:

- a. 1,4-dioxane causes extensive and persistent groundwater contamination when it, or products containing it, are used in their foreseeable and intended manner.

- b. 1,4-dioxane contamination in drinking water poses significant threats to public health and welfare.
- c. Defendants failed to conduct and/or failed to disclose reasonable, appropriate, or adequate scientific studies to evaluate the environmental fate and transport and potential human health effects of 1,4-dioxane.
- d. 1,4-dioxane is an unnecessary contaminant to consumer products containing ethoxylated surfactants that neither adds materially to the effectiveness of the products nor provides any other benefit as an ingredient of the products.

45. At all times relevant to this action, products containing 1,4-dioxane were dangerous to an extent beyond that which would be contemplated by the ordinary consumer, and/or the foreseeable risk of harm to public health and welfare posed by 1,4-dioxane outweighed the cost to Defendants of reducing or eliminating such risk.

46. As a direct and proximate result of the defects previously described, many of Plaintiff's wells have been, and continue to be, contaminated with 1,4-dioxane in varying amounts over time, causing Plaintiff significant injury and damage.

47. As a direct and proximate result of the Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to 1,4-dioxane contamination of its wells in an amount to be proved at trial.

48. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of drinking water wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard of

the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

49. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

**SECOND CAUSE OF ACTION
Strict Products Liability for Failure to Warn**

50. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraph as if fully stated herein.

51. As designers, manufacturers, distributors, sellers, suppliers, and/or marketers of 1,4-dioxane and/or products containing 1,4-dioxane, Defendants had a strict duty to warn against latent dangers resulting from foreseeable uses of their products that Defendants knew or should have known about.

52. Defendants knew that third parties would purchase products containing 1,4-dioxane and use them without inspection for defects.

53. Products containing 1,4-dioxane purchased or otherwise acquired (directly or indirectly) from Defendants by third parties were applied, discharged, disposed of, or otherwise released at various locations, at various times, and in various amounts onto the lands and/or water in the vicinity of Plaintiff's drinking water production wells.

54. The products containing 1,4-dioxane purchased by third parties were used in a reasonably foreseeable manner and without substantial change in the condition of such products.

55. Defendants knew or should have known that the use of products containing 1,4-dioxane in their intended manner would result in the discharge, disposal, or release of 1,4-dioxane onto land or into water.

56. The products containing 1,4-dioxane used in the vicinity of Plaintiff's drinking water production wells were defective in design and unreasonably dangerous products for the reasons set forth in Paragraphs 44 and 45 above.

57. Despite the known and/or reasonably foreseeable hazards to human health and welfare associated with the use of products containing 1,4-dioxane in the vicinity of Plaintiff's drinking water production wells, including contamination of public drinking water wells with 1,4-dioxane, Defendants failed to provide adequate warnings of, or take any other precautionary measures to mitigate, those hazards.

58. In particular, Defendants failed to describe such hazards or provide any precautionary statements regarding such hazards in the labeling of their products containing 1,4-dioxane or otherwise.

59. As a direct and proximate result of Defendants' failure to warn of the hazards posed by disposal or release of products containing 1,4-dioxane in the vicinity of subterranean public drinking water wells that were, or reasonably should have been, known to them, 1,4-dioxane contaminates many of Plaintiff's wells in varying amounts.

60. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to 1,4-dioxane contamination of its wells in an amount to be proved at trial.

61. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of

drinking water wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

62. Defendants are strictly, jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

THIRD CAUSE OF ACTION
Negligence

63. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraph as if fully stated herein.

64. As commercial manufacturers, sellers, distributors, suppliers, marketers, and/or designers of 1,4-dioxane products, Defendants owed a duty of care to Plaintiff not to place into the stream of commerce a product that was in a defective condition and unreasonably dangerous to drinking water in Suffolk County.

65. Defendants breached this duty by negligently designing, formulating, manufacturing, distributing, selling, supplying, and/or marketing such unreasonably dangerous products into the stream of commerce, including in Suffolk County, even when they knew or should have known about the dangers 1,4-dioxane posed to drinking water wells.

66. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to 1,4-dioxane contamination of its wells in an amount to be proved at trial.

67. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of drinking water wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

68. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

FOURTH CAUSE OF ACTION Public Nuisance

69. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraph as if fully stated herein.

70. The Authority provides drinking water from its wells in Suffolk County to a large number of residents and businesses for drinking, bathing, cleaning, washing, and other uses.

71. Because the Authority is a public entity, the water it provides to those residents and businesses is a public or commonly held resource. Members of the public have a right to have their water remain clean and potable, free of contamination by toxic man-made compounds.

72. Defendants' acts and omissions, including their manufacture, promotion, marketing, sale, distribution, supply, defective design of, and/or failure to warn regarding 1,4-dioxane in their products, contaminated such wells, rendering water served from them a public health hazard and unfit for human consumption.

73. Consequently, Defendants substantially interfered with and caused damage to a public or common resource that endangered public property, as well as the health, safety, and comfort of a considerable number of persons. Such action creates, contributes to, or maintains a public nuisance.

74. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to 1,4-dioxane contamination of its wells in an amount to be proved at trial.

75. As an owner of water production wells and purveyor of drinking water, Plaintiff suffers injuries different in kind from the community at large because it relies entirely upon its groundwater production wells for its public service functions.

76. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of drinking water wells. The Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

77. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

FIFTH CAUSE OF ACTION
Private Nuisance

78. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraph as if fully stated herein.

79. Plaintiff is the owner of land, easements, and water rights that permit it to extract groundwater for use in its wells to provide drinking water to its customers.

80. Defendants' intentional, negligent, and/or reckless conduct, as alleged herein, has resulted in substantial contamination in Plaintiff's wells by 1,4-dioxane, a likely human carcinogen that renders water unfit for drinking water purposes.

81. Defendants' manufacture, distribution, sale, supply, and marketing of 1,4-dioxane and/or products containing 1,4-dioxane was unreasonable because Defendants had knowledge of 1,4-dioxane's unique and dangerous chemical properties and knew that contamination of public drinking water wells was substantially certain to occur, but failed to provide adequate warnings of, or take any other precautionary measures to mitigate, those hazards.

82. The contamination caused, contributed to, and/or maintained by Defendants substantially and unreasonably interferes with Plaintiff's property rights to appropriate, use, and enjoy groundwater from its wells.

83. Each defendant has caused, contributed to, and/or maintained such nuisance, and is a substantial contributor to such nuisance.

84. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to 1,4-dioxane contamination of its wells in an amount to be proved at trial.

85. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of public

drinking water wells. Defendants committed each of the above-described acts and omission knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

86. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

SIXTH CAUSE OF ACTION
Trespass

87. Plaintiff realleges each of the preceding paragraphs and incorporates each such paragraph as if fully stated herein.

88. Plaintiff owns and possesses its drinking water production system, including drinking water production wells that extract groundwater in Suffolk County, New York.

89. Plaintiff actually and actively exercises its rights to appropriate and use groundwater drawn from its wells.

90. Plaintiff did not give any Defendant permission to cause 1,4-dioxane to enter its groundwater wells.

91. Defendants knew or reasonably should have known that 1,4-dioxane has a propensity to infiltrate groundwater aquifers when released to the environment; is a mobile and persistent groundwater contaminant capable of moving substantial distances within aquifers; is toxic to human health; and is therefore hazardous to drinking water systems and human health.

92. Defendants manufactured, promoted, marketed, distributed, and/or sold products containing 1,4-dioxane, which Defendants knew or reasonably should have known would virtually certainly be discharged and release toxic 1,4-dioxane into the ground and sewer system, and intrude upon, contaminate, and damage Plaintiff's possessory interest.

93. Defendants' conduct constitutes a continuing unauthorized intrusion and a continuing trespass onto the Authority's property.

94. Each Defendant is a substantial factor in bringing about the contamination of Plaintiff's wells, and each Defendant aided and abetted the trespasses and is jointly responsible for the injuries and damage caused to Plaintiff.

95. As a direct and proximate result of Defendants' acts and omissions as alleged herein, Plaintiff has incurred, is incurring, and will continue to incur damages related to 1,4-dioxane contamination of its wells in an amount to be proved at trial.

96. Defendants knew it was substantially certain that their acts and omissions described above would cause injury and damage, including 1,4-dioxane contamination of drinking water wells. Defendants committed each of the above-described acts and omissions knowingly, willfully, and with oppression, fraud, and/or malice. Such conduct was performed to promote sales of 1,4-dioxane and/or products containing 1,4-dioxane, in conscious disregard to the probable dangerous consequences of that conduct and its reasonably foreseeable impacts on public health and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish these Defendants and that fairly reflects the aggravating circumstances alleged herein.

97. Defendants are jointly and severally liable for all such damages, and Plaintiff is entitled to recover all such damages and other relief as set forth below.

VI. Prayer for Relief

Plaintiff Suffolk County Water Authority prays for judgment against Defendants, jointly and severally, awarding Plaintiff:

- a. Compensatory damages in an amount according to proof;
- b. Punitive damages in an amount to be determined at trial;
- c. Injunctive and equitable relief, including in the form of a fund to abate the nuisance and trespass;
- d. All appropriate declaratory relief;
- e. Plaintiff's costs in prosecuting this action, including reasonable attorneys' fees, court costs, expert fees, and other expenses of litigation;
- f. Pre-judgment interest and post-judgment interest; and
- g. All other relief this Court deems just, proper, and equitable.

/ / /

VII. Demand for Jury Trial

Pursuant to Federal Rule of Civil Procedure 38, Plaintiff requests a trial by jury of all claims asserted in this Complaint.

Dated: November 30, 2017

Respectfully submitted,



Scott Martin

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